

## CLAIMS

Therefore, having thus described the invention, at least the following is claimed:

- 1        1. A method for an application client to interface with a device driver in a client  
2        device with persistent storage, comprising the steps of:  
3                maintaining a data record for media content instances stored on a hard disk;  
4                commanding the device driver to provide normal play time locations of the media  
5                content instances for storage of the normal play time locations in the data  
6                record; and  
7                using the normal play time locations to reference the media content instances  
8                stored in the clusters of the hard disk.
  
- 1        2. The interfacing method of claim 1, further comprising the step of commanding the  
2        device driver to allocate a substantially constant size portion of the hard disk for a buffer  
3        file for buffering the media content instances.
  
- 1        3. The interfacing method of claim 2, further comprising the steps of receiving, from  
2        the device driver, the normal play time locations corresponding to the buffer file, the  
3        media content instances of the buffer file, and the current write location, and storing the  
4        normal play time locations in the data record.
  
- 1        4. The interfacing method of claim 2, further comprising the steps of receiving a user  
2        request to designate one of the media content instances of the buffer file as permanent and  
3        designating the requested media content instance as a permanent file.
  
- 1        5. The interfacing method of claim 4, further comprising the step of passing the  
2        normal play time locations, of the media content instance requested by the user, from the  
3        data record to the device driver in order to enable the device driver to locate the requested  
4        media content instance.
  
- 1        6. The interfacing method of claim 4, further comprising the steps of receiving, from  
2        the device driver, the normal play time locations corresponding to the permanent file and  
3        storing the normal play time locations in the data record.

1       7. The interfacing method of claim 1, further comprising the step of commanding the  
2 device driver to transition a read location from a buffer file to a permanent file when the  
3 normal play time location of the read location is no longer pointing to the clusters of the  
4 buffer file.

1       8. The interfacing method of claim 1, further comprising the steps of storing in the  
2 data record real-time start and stop time values of the media content instances, wherein  
3 the real-time start and stop time values are retrieved from a media content instance guide  
4 database, and using the stop time values to determine the stop times of the media content  
5 instances.

1       9. The interfacing method of claim 1, further comprising the steps of receiving and  
2 storing in the data record real-time start and stop buffering times and real-time permanent  
3 recording times provided by an operating system.

1       10. A method for an application client to interface with a device driver in a client  
2 device with persistent storage, comprising the steps of:

3              1 using normal play time locations to reference media content instances of a buffer  
4              file stored in clusters of a hard disk; and  
5              designating one of the referenced media content instances of the buffer file as a  
6              permanent file.

1       11. The interfacing method of claim 10, further comprising the step of commanding  
2 the device driver to allocate a substantially constant size portion of the hard disk for the  
3 buffer file.

1       12. The interfacing method of claim 10, further comprising the steps of receiving,  
2 from the device driver, the normal play time locations corresponding to the buffer file, the  
3 media content instances of the buffer file, and the current write location, and storing the  
4 normal play time locations in a data record.

1       13. The interfacing method of claim 10, further comprising the steps of receiving a  
2 user request to designate one of the media content instances of the buffer file as  
3 permanent and designating the requested media content instance as a permanent file.

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1     14. The interfacing method of claim 13, further comprising the step of passing the  
2     normal play time locations, of the media content instance requested by the user, from a  
3     data record to the device driver in order to enable the device driver to locate the requested  
4     media content instance.

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1     15. The interfacing method of claim 10, further comprising the steps of receiving,  
2     from the device driver, the normal play time locations corresponding to the permanent file  
3     and storing the normal play time locations in a data record.

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1     16. The interfacing method of claim 10, further comprising the step of commanding  
2     the device driver to transition a read location from a buffer file to a permanent file when  
3     the normal play time location of the read location is no longer pointing to the clusters of  
4     the buffer file.

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1     17. The interfacing method of claim 10, further comprising the steps of storing in a  
2     data record real-time start and stop time values for the media content instances, wherein  
3     the real-time start and stop time values are retrieved from a media content instance guide  
4     database, and using the stop time values to determine the stop times of the media content  
5     instances.

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1     18. The interfacing method of claim 10, further comprising the steps of receiving and  
2     storing in a data record real-time start and stop buffering times and real-time permanent  
3     recording times provided by an operating system.

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1     19. A method for an application client to interface with a device driver in a client  
2     device with persistent storage, comprising the steps of:  
3         commanding the device driver to allocate a substantially constant size portion of a  
4                 hard disk for a buffer file for buffering media content instances;  
5         maintaining a data record for the media content instances stored in clusters of the  
6                 buffer file;  
7         storing in the data record real-time start and stop time values of the media content  
8                 instances, wherein the real-time start and stop time values are retrieved

9                   from a media content instance guide database, and using the stop time  
10                  values to determine the stop times of the media content instances;  
11                  commanding the device driver to provide normal play time locations of the media  
12                  content instances corresponding to the buffer file, the media content  
13                  instances of the buffer file, and the current write location;  
14                  receiving, from the device driver, the normal play time locations of the media  
15                  content instances corresponding to the buffer file, the media content  
16                  instances of the buffer file, and the current write location;  
17                  storing the normal play time locations in the data record;  
18                  receiving a user request to designate one of the media content instances of the  
19                  buffer file as permanent and designating the requested media content  
20                  instance as a permanent file;  
21                  passing the normal play time locations, of the media content instance requested by  
22                  the user, from the data record to the device driver in order to enable the  
23                  device driver to locate the requested media content instance; and  
24                  designating the identified media content instance as a permanent recording file.

20. An interfacing system that enables an application client to interface with a device  
21                  driver in a client device with persistent storage, comprising:  
22                  a memory with logic; and  
23                  a processor configured with the logic to maintain a data record for media content  
24                  instances stored on a hard disk, wherein the processor is further configured  
1                  with the logic to command the device driver to provide normal play time  
2                  locations of the media content instances for storage of the normal play  
3                  time locations in the data record, wherein the processor is further  
4                  configured with the logic to use the normal play time locations to reference  
5                  the media content instances stored in the clusters of the hard disk.

1                  21. The interfacing system of claim 20, wherein the processor is further configured  
2                  with the logic to command the device driver to allocate a substantially constant size  
3                  portion of the hard disk for a buffer file for buffering the media content instances.

1                  22. The interfacing system of claim 21, wherein the processor is further configured  
2                  with the logic to receive, from the device driver, the normal play time locations

3 corresponding to the buffer file, the media content instances of the buffer file, and the  
4 current write location, wherein the processor is further configured with the logic to store  
5 the normal play time locations in the data record.

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2 23. The interfacing system of claim 21, wherein the processor is further configured  
3 with the logic to receive a user request to designate one of the media content instances of  
4 the buffer file as permanent, wherein the processor is further configured with the logic to  
5 designate the requested media content instance as a permanent file.

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2 24. The interfacing system of claim 23, wherein the processor is further configured  
3 with the logic to pass the normal play time locations, of the media content instance  
4 requested by the user, from the data record to the device driver in order to enable the  
5 device driver to locate the requested media content instance.

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2 25. The interfacing system of claim 23, wherein the processor is further configured  
3 with the logic to receive, from the device driver, the normal play time locations  
4 corresponding to the permanent file and store the normal play time locations in the data  
5 record.

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2 26. The interfacing system of claim 20, wherein the processor is further configured  
3 with the logic to command the device driver to transition a read location from a buffer file  
4 to a permanent file when the normal play time location of the read location is no longer  
5 pointing to the buffer file.

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2 27. The interfacing system of claim 20, wherein the processor is further configured  
3 with the logic to store in the data record real-time start and stop time values for the media  
4 content instances, wherein the real-time start and stop time values are retrieved from a  
5 media content instance guide database, and use the stop time values to determine the stop  
times of the media content instances.

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2 28. The interfacing system of claim 20, wherein the processor is further configured  
3 with the logic to receive and store in the data record real-time start and stop buffering  
4 times and real-time permanent recording times provided by an operating system.

1        29. An interfacing system that enables an application client to interface with a device  
2        driver in a client device with persistent storage, comprising:

3              a memory with logic; and

4              a processor configured with the logic to use the normal play time locations to  
5              reference media content instances of a buffer file stored in clusters of a  
6              hard disk, wherein the processor is further configured with the logic to  
7              designate one of the referenced media content instances of the buffer file  
8              as a permanent file.

1        30. The interfacing system of claim 29, wherein the processor is further configured  
2        with the logic to command the device driver to allocate a substantially constant size  
3        portion of the hard disk for the buffer file.

1        31. The interfacing system of claim 29, wherein the processor is further configured  
2        with the logic to receive, from the device driver, the normal play time locations  
3        corresponding to the buffer file, the media content instances of the buffer file, and the  
4        current write location, wherein the processor is further configured with the logic to store  
5        the normal play time locations in a data record.

1        32. The interfacing system of claim 29, wherein the processor is further configured  
2        with the logic to receive a user request to designate one of the media content instances of  
3        the buffer file as permanent, wherein the processor is further configured with the logic to  
4        designate the requested media content instance as a permanent file.

1        33. The interfacing system of claim 32, wherein the processor is further configured  
2        with the logic to pass the normal play time locations, of the media content instance  
3        requested by the user, from a data record to the device driver in order to enable the device  
4        driver to locate said media content instance.

1        34. The interfacing system of claim 29, wherein the processor is further configured  
2        with the logic to receive, from the device driver, the normal play time locations  
3        corresponding to the permanent file and store the normal play time locations in a data  
4        record.

1       35. The interfacing system of claim 29, wherein the processor is further configured  
2 with the logic to command the device driver to transition a read location from a buffer file  
3 to a permanent file when the normal play time location of the read location is no longer  
4 pointing to the buffer file.

1       36. The interfacing system of claim 29, wherein the processor is further configured  
2 with the logic to store in a data record real-time start and stop time values for the media  
3 content instances, wherein the real-time start and stop time values are retrieved from a  
4 media content instance guide database, and use the stop times values to determine the  
5 stop times of the media content instances.

1       37. The interfacing system of claim 29, wherein the processor is further configured  
2 with the logic to receive and store in a data record real-time start and stop buffering times  
3 and real-time permanent recording times provided by an operating system.

1       38. An interfacing system that enables an application client to interface with a device  
2 driver in a client device with persistent storage, comprising:

3              a memory with logic; and  
4              a processor configured with the logic to command the device driver to allocate a  
5              substantially constant size portion of a hard disk for a buffer file for  
6              buffering media content instances, wherein the processor is further  
7              configured with the logic to maintain a data record for the media content  
8              instances stored in clusters of the buffer file, wherein the processor is  
9              further configured with the logic to store in the data record real-time start  
10             and stop time values of the media content instances, wherein the real-time  
11             start and stop time values are retrieved from a media content instance  
12             guide database, and using the stop time values to determine the stop times  
13             of the media content instances, wherein the processor is further configured  
14             with the logic to command the device driver to provide normal play time  
15             locations of the media content instances corresponding to the buffer file,  
16             the media content instances of the buffer file, and the current write  
17             location, wherein the processor is further configured with the logic to  
18             receive, from the device driver, the normal play time locations of the  
19             media content instances corresponding to the buffer file, the media content

20 instances of the buffer file, and the current write location, wherein the  
21 processor is further configured with the logic to store the normal play time  
22 locations in the data record, wherein the processor is further configured  
23 with the logic to receive a user request to designate one of the media  
24 content instances of the buffer file as permanent and designating the  
25 requested media content instance as a permanent file, wherein the  
26 processor is further configured with the logic to pass the normal play time  
27 locations, of the media content instance requested by the user, from the  
28 data record to the device driver in order to enable the device driver to  
29 locate the requested media content instance, wherein the processor is  
30 further configured with the logic to designate the identified media content  
31 instance as a permanent recording file.